

CLAIMS

What is claimed is:

1. A computer-implemented method comprising:
5 analyzing a computer-servable document written for a particular locale;
and
extracting locale-sensitive content from the document while leaving
locale-independent elements in the document.
- 10 2. A computer-implemented method as recited in claim 1, wherein
the analyzing comprises examining each line of code in the document and
based on the code, identifying the locale-sensitive content.
- 15 3. A computer-implemented method as recited in claim 1, wherein
the locale-sensitive content comprises natural language text.
4. A computer-implemented method as recited in claim 1, wherein
the locale-independent elements comprise source code and formatting data.
- 20 5. A computer-implemented method as recited in claim 1, further
comprising storing the locale-sensitive content in a data structure separate from
the document.

6. A computer-implemented method as recited in claim 5, further comprising substituting a function call in place of associated locale-sensitive content in the document, the function call being configured such that, when executed, the function call obtains the locale-sensitive content from the data structure.

7. A method comprising:
examining source code in a document written for a particular locale;
determining, from the source code, locale-sensitive content that is
specific to the particular locale;
extracting the locale-sensitive content from the source code;
storing the locale-sensitive content in a separate file; and
inserting, into the document in place of the locale-sensitive content, a reference to the locale-sensitive content in the separate file.

8. A method as recited in claim 7, wherein the locale-sensitive content comprises natural language text.

9. A method as recited in claim 7, wherein the determining comprises:
ascertaining a type of code elements using a grammar for the source code; and
identifying, based on the type of the code elements, any locale-sensitive content delimited by the code elements.

10. A method as recited in claim 7, wherein the storing comprises storing the locale sensitive content in a structured text file.

11. A method as recited in claim 7, wherein the storing comprises storing the locale sensitive content in a database file.

12. A method as recited in claim 7, wherein the reference comprises
5 a function call that, when executed, obtains the locale-sensitive content from the separate file.

13. A method comprising:
automatically compiling a computer-servable document written for a
10 particular locale to extract any locale-sensitive content, the compiling producing a compiled document with locale-independent elements; and
storing the locale-sensitive content in a form that can be translated to other locales.

14. A method as recited in claim 13, wherein the locale-sensitive
15 content comprises natural language text.

15. A method as recited in claim 13, wherein the locale-independent
elements comprise source code and formatting data.

20

16. A method as recited in claim 13, further comprising substituting a
reference in place of the locale-sensitive content in the compiled document, the
reference identifying the locale-sensitive content extracted from the compiled
document.

25

17. A method as recited in claim 13, further comprising substituting a function call in place of the locale-sensitive content in the compiled document, the function call being configured such that, when executed, the function call obtains and embeds the locale-sensitive content back into the compiled
5 document.

18. A method as recited in claim 13, further comprising retrieving, at runtime, the compiled document and populating the compiled document with the locale-sensitive content to reconstruct the computer-servable document that
10 can be served to the particular locale.

19. A method as recited in claim 13, wherein the locale-sensitive content is translated in to a second version for use in a second locale, further comprising retrieving, at runtime, the compiled document and populating the
15 compiled document with the second version of the locale-sensitive content to construct a computer-servable document that can be served to the second locale.

20. A method comprising:
20 compiling a computer-servable document written for a particular locale to extract any locale-sensitive content, the compiling producing a compiled document with locale-independent elements;
storing the locale-sensitive content; and
at runtime, retrieving the compiled document and populating the
25 compiled document with the locale-sensitive content.

21. A method as recited in claim 20, wherein the locale-sensitive content comprises natural language text.

22. A method as recited in claim 20, wherein the locale-independent
5 elements comprise source code and formatting data.

23. A method as recited in claim 20, wherein the storing comprises storing the locale-sensitive content in a structured text file.

10 24. A method as recited in claim 20, wherein the storing comprises storing the locale sensitive content in a database file.

25. A method as recited in claim 20, further comprising:
substituting a function call in place of associated locale-sensitive content
15 in the compiled document; and

the populating comprises executing the function call in the compiled document to obtain the associated locale-sensitive content and insert the associated locale-sensitive content back into the compiled document.

20 26. A method as recited in claim 20, further comprising:
storing one or more translated versions of the locale-sensitive content;
and

at runtime, retrieving the compiled document and populating the compiled document with a translated version of the locale-sensitive content.

25

27. A method for producing a document to be served to a user in a particular locale, comprising:

retrieving a locale-independent core that contains locale-independent elements; and

5 populating the locale-independent core with locale-sensitive content that is appropriate for the particular locale.

28. A method as recited in claim 27, wherein the locale-sensitive content comprises natural language text.

10

29. A method as recited in claim 27, wherein the locale-independent elements comprise source code and formatting data.

30. A method as recited in claim 27, wherein the locale-independent
15 core contains a function call in place of where corresponding locale-sensitive content reside in the document, and the populating comprises executing the function call to obtain the locale-sensitive content and insert the locale-sensitive content into the core.

20 31. A method as recited in claim 27, wherein multiple translations of the locale-sensitive content exist for multiple locales, and further comprising populating the locale-independent core with a translation of the locale-sensitive content, the translation being suitable for a corresponding locale to which the document is to be served.

25

32. A system comprising:

at least one computer-servable document stored in a computer-readable medium, the document being written for a particular locale; and

a compiler to automatically extract locale-sensitive content from the document to produce a compiled document containing locale-independent elements.

5 **33.** A system as recited in claim 32, wherein the locale-sensitive content comprises natural language text.

34. A system as recited in claim 32, wherein the locale-independent elements comprise source code and formatting data.

10

35. A system as recited in claim 32, wherein the compiler examines source code in the document to determine, from the source code, whether locale-sensitive content is present.

15

36. A system as recited in claim 32, wherein the compiler stores the locale-sensitive content in a data structure separate from the compiled document.

20

37. A system as recited in claim 36, wherein the compiler inserts a reference in place of the locale-sensitive content in the document, the reference identifying the locale-sensitive content in the data structure.

38. A system as recited in claim 36, wherein the compiler substitutes a function call in place of associated locale-sensitive content in the compiled document, the function call being configured such that, when executed, the function call obtains the associated locale-sensitive content from the data structure and inserts the associated locale-sensitive content back into the compiled document.

39. A system as recited in claim 32, further comprising a runtime manager that, prior to serving, populates the compiled document with the locale-sensitive content.

40. A system as recited in claim 32, wherein the locale-sensitive content is translated into at least one translated version of the content, further comprising a runtime manager that populates the document with the translated version of the content.

41. A compiler system comprising:
a grammar containing rules for structuring source code;
a content analyzer to analyze source code in a document written for a particular locale and to utilize the grammar to determine whether the source code contains locale-sensitive content that is specific to the particular locale, the content analyzer being configured to replace the locale-sensitive content in the source code with associated references to the replaced locale-sensitive content.

42. A compiler system as recited in claim 41, wherein the locale-sensitive content is placed in a separate file, and the references comprise a pointer to that file.

5 43. A compiler system as recited in claim 41, wherein the locale-sensitive content is placed in a separate data structure, and the references comprise function calls that, when executed, obtain the associated locale-sensitive content from the data structure and insert the associated locale-sensitive content into the source code.

10

44. A compiler system as recited in claim 41, further comprising:
a call library to store function calls; and

the content analyzer replaces the locale-sensitive content with one or more function calls from the call library, the function calls being configured
15 such that, when executed, the function calls reinsert the locale-sensitive content back into the source code.

45. A system comprising:

a resource bundle containing locale-specific content that is authored for
20 a particular locale; and

a resource bundle manager to populate a locale-independent document core with the locale-sensitive content in the resource bundle to produce a computer-servable document that is suitable to be served to the particular locale.

25

46. A system as recited in claim 45, wherein the resource bundle is embodied as one of a structured text file or a database file.

47. A system as recited in claim 45, wherein the locale-specific content comprises natural language text.

5 48. A system as recited in claim 45, wherein the document core contains source code and function calls embedded within the source code, the resource bundle manager being configured to execute the function calls to reinsert associated locale-specific content into the document core.

10 49. A system comprising:
compilation means for compiling a computer-servable document written for a particular locale to extract any locale-sensitive content, the compilation means producing a compiled document with locale-independent elements; and
storage means for storing the locale-sensitive content extracted from the computer-servable document in a data structure separate from the compiled
15 document.

20 50. A system as recited in claim 49, wherein the compilation means comprises substitution means for substituting a reference in place of the locale-sensitive content in the compiled document, the reference identifying the locale-sensitive content extracted from the compiled document.

25 51. A system as recited in claim 49, further comprising runtime means for populating, at runtime, the compiled document with the locale-sensitive content to reconstruct the computer-servable document.

52. A system as recited in claim 49, wherein the locale-sensitive content is translated in to a second version for use in a second locale, further comprising runtime means for populating, at runtime, the compiled document with the second version of the locale-sensitive content to construct a computer-servable document that can be served to the second locale.

53. A system comprising:
retrieval means for retrieving a document core containing locale-independent elements; and
10 populating means for populating the document with locale-sensitive content to produce a computer-servable document that is appropriate for serving to a particular locale.

54. A system as recited in claim 53, wherein multiple translations of the locale-sensitive content exist for multiple locales, the populating means comprises populating the document core with a translation of the locale-sensitive content to produce a computer-servable document that is suitable for serving into another locale.

55. One or more computer-readable media comprising computer-executable instructions that, when executed, direct a computer to:
examine source code in a document written for a particular locale;
extract any locale-sensitive content from the source code;
store the locale-sensitive content in a separate file; and
25 substitute, in place of the locale-sensitive content in the document, a reference to the locale-sensitive content in the separate file.

56. One or more computer-readable media comprising computer-executable instructions that, when executed, direct a computer to:

retrieve a core file containing source code and locale-independent elements; and

- 5 populate the core file with locale-sensitive content that is appropriate for a particular locale to produce a document that can be served to the particular locale.